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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,210	06/21/2000	Johan Nilsson	040071-173	8106

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EXAMINER	
LAMARRE, GUY J	

ART UNIT	PAPER NUMBER
2133	10

DATE MAILED: 02/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/598,210	Applicant(s) NILSSON, JOHAN	
	Examiner Guy J. Lamarre, P.E.	Art Unit 2133	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8 January 2004* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *8 January 2004* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

FINAL OFFICE ACTION

1. This office action is in response to Applicants' **Amendment** of *8 January 2004*. The formal drawings, jointly submitted, are approved by the Examiner.

1.1 **Claims 1** and **10** are amended. **Claims 1-18** remain pending.

1.2 The rejections of record to **Claims 1-12** and **14-16** are withdrawn in response to Applicants' **Amendment** of *8 January 2004*.

1.3 The indicated allowability of **Claims 4, 8-9, 13** and **17-18**, as set forth in the office action of 4/24/2003, is withdrawn in response to Applicants' amendment of *8 January 2004*.

1.4 The objection of record to the drawings, as set forth in the office action of 4/24/2003, is withdrawn in response to Applicants' amendment of *8 January 2004*.

Response to Arguments

2. Applicants' arguments of *8 January 2004* have been fully considered, and are deemed persuasive only to the extent that the newly added limitation or approach whereby 'the previously calculated bit error rate is calculated using a previously received signal (as opposed to Abe's disclosure of a "preset or static or fixed BER') is not specifically disclosed in detail by the prior art of record.

However, Examiner notes that such calculation based on a previously received signal renders the claims indefinite when a bit error exists in the first received signal at the beginning of data transfer as delineated in the following rejections under the first and second paragraphs of 35 U.S.C. 112.

Examiner further notes that such calculation based on a previously received signal also renders the claims non-statutory under 35 U.S.C. 101 as failing to produce a useful result.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.1 **Claims 1-18** are rejected under 35 U.S.C. 101 as failing to be operational or usefull for all error conditions on a continuous basis for all data communications channel conditions.

As per Claims 1, 9, and intervening claims, the bit error rate estimate is undefined when a bit error is present in the 1st block of the received signal at the start of data transfer because, at that moment, there is not a previously received signal. As a consequence, no bit error rate estimate can be performed thereby resulting in a procedure having no useful tangible result.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first and **second** paragraphs of 35 U.S.C. 112:

> 1. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
>
> 2.. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.1 **Claims 1-18 are** rejected under the **first paragraph of 35 U.S.C. 112** for failing to describe, in the specification, the manner in which the bit error rate is calculated when there is a bit error in the 1st received signal, and the manner in which such bit error rate is calculated when there is no previously received signal.

4.2 **Claims 1-18 are** rejected under the **second paragraph of 35 U.S.C. 112** for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention.

As per Claims 1, 9, and intervening claims: It is not clear **to the Examiner** how the bit error rate estimate is performed when a bit error is present in the 1st received signal at the start of data transfer because, at that time, there is no previously received signal. The bit error rate estimate procedure will stop operating absent some means of equating said bit error rate estimate to some preset value X_0, wherein said preset value X_0 is independent of previously received

signals.

REMARKS

5. Examiner notes that **Claim 4** was objected as incorporating therein allowable subject matter in the last office action. Therefore, only **Claims 1-3, 5-7, 10-12** and **14-16** stood rejected under 35 U.S.C. 103(a) contrary to what is alleged on Applicant's response of page 11 para. 1.

5.0 In response to Claims **1-3, 5-7, 10-12** and **14-16,** Applicants argue, on page 11 para. 2, that the prior art of record does not teach: use of "a previously calculated BER, and that only a preset or static or fixed BER is chosen." Examiner disagrees, and notes that "a preset or static or fixed BER" is equivalent to "a previously calculated BER." Examiner also notes that at outset of BER computation, there is no "previously calculated BER" thereby highlighting the fact that "a preset or static or fixed BER" is equivalent to "a previously calculated BER."

Therefore, Abe discloses such "preset or static or fixed BER" or "previously calculated BER."

5.01 Examiner notes (re : page 11 para. 3) that the new limitation trying to distinguish over the prior art of record results in rendering the claimed invention as a whole indefinite and inoperable. Consequently, the indicated allowability of record of **Claims 4, 8-9, 13** and **17-18** is withdrawn.

5.1 It is suggested that the independent claims be amended to overcome the rejections formulated above along with inclusion of indicated allowable subject matter of record into such independent claims to place the present application in condition for allowance.

Conclusion

5.2 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5.3 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5.4 Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (703) 305-0755. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached on (703) 305-9595.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Guy J. Lamarre

Guy J. Lamarre, P.E
Patent Examiner
1/22/04